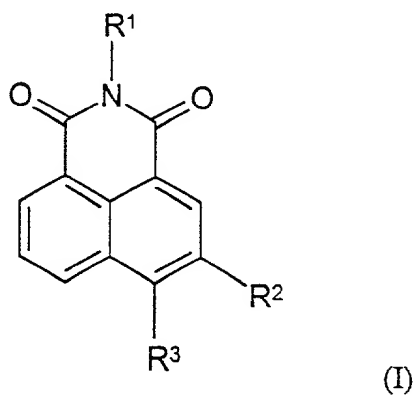


CLAIMS

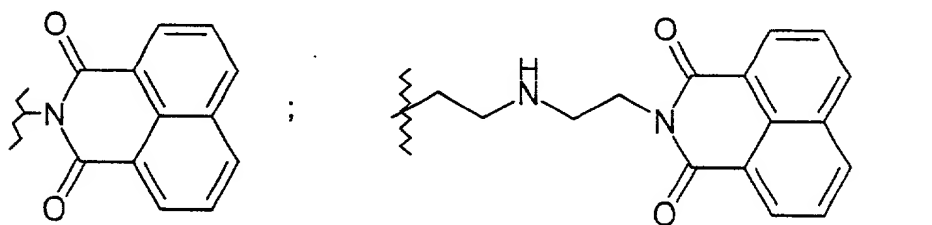
WE CLAIM:

- 5 1. A pharmaceutical composition comprising a compound of Formula I,

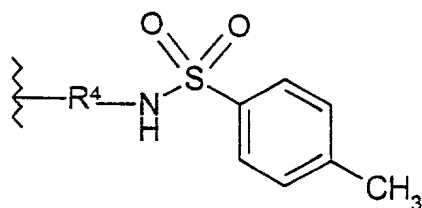


wherein

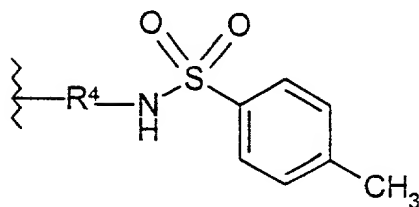
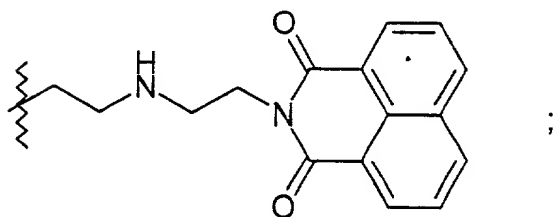
- 10 R¹ is selected from alkyl; aryl-loweralkyl; heterocycle-loweralkyl; loweralkyl-carbonate; amino optionally monosubstituted or disubstituted with a substituent selected from loweralkyl, aryl and hydroxyloweralkyl; benzimidaz-2-yl;



- 15 and



- wherein R^4 is phenyl optionally monosubstituted or disubstituted with a substituent selected from loweralkyl and halo; phenyl optionally monosubstituted or disubstituted with a substituent selected from amino, loweralkoxy, hydroxy and loweralkyl; $NHCH_2CH_2OX$ wherein X represents an *in vivo* hydrolyzable ester; and loweralkyl-
- 5 $(R^5)(R^6)$ wherein one of R^5 and R^6 is selected from H and loweralkyl and the other is selected from carboxy, carboxy-loweralkyl and loweralkoxycarbonyl; and R^2 and R^3 are independently selected from H, NO_2 , halo, di(loweralkyl)amino, cyano, $C(O)OH$, phenyl-S-, loweralkyl, and $Z(O)OR^7$ wherein Z is selected from C and S and R^7 is selected from H, loweralkylamino and arylamino;
- 10 and pharmaceutically acceptable salts thereof, in an amount effective to inhibit neurotrophin-mediated activity, and a suitable carrier.
2. A pharmaceutical composition according to claim 1, wherein R^1 is selected from alkyl; aryl-loweralkyl; heterocycle-loweralkyl; loweralkyl-carbonate; amino optionally
- 15 monosubstituted or disubstituted with a substituent selected from loweralkyl and hydroxyloweralkyl; benzimidaz-2-yl;



20

wherein R^4 is phenyl optionally monosubstituted or disubstituted with a substituent selected from loweralkyl and halo; phenyl optionally monosubstituted or disubstituted

with a substituent selected from amino, loweralkoxy, hydroxy and loweralkyl;
 NHCH₂CH₂OX wherein X represents an *in vivo* hydrolyzable ester; and loweralkyl-
 R⁵)(R⁶) wherein one of R⁵ and R⁶ is selected from H and loweralkyl and the other is
 selected from carboxy, carboxy-loweralkyl and loweralkoxy-carbonyl; and

5 R² and R³ are independently selected from H, NO₂, halo, di(loweralkyl)amino, and phenyl-S-.

3. A pharmaceutical composition according to claim 2, wherein R¹ is selected from
 aryl-loweralkyl; heterocycle-loweralkyl; loweralkyl-carbonate; amino optionally
 10 monosubstituted or disubstituted with a substituent selected from loweralkyl and
 hydroxyloweralkyl; benzimidaz-2-yl; NHCH₂CH₂OX wherein X represents an *in vivo*
 hydrolyzable ester; and loweralkyl-(R⁵)(R⁶) wherein one of R⁵ and R⁶ is selected from H
 and loweralkyl and the other is selected from carboxy, carboxy-loweralkyl and
 loweralkoxy-carbonyl; and
 15 R² and R³ are independently selected from H, NO₂, di(loweralkyl)amino, and phenyl-S-.

4. A pharmaceutical composition according to claim 3, wherein R¹ is selected from
 amino optionally monosubstituted or disubstituted with a substituent selected from
 loweralkyl and hydroxyloweralkyl; NHCH₂CH₂OX wherein X represents an *in vivo*
 20 hydrolyzable ester; and loweralkyl-(R⁵)(R⁶) wherein one of R⁵ and R⁶ is selected from H
 and loweralkyl and the other is selected from carboxy, carboxy-loweralkyl and
 loweralkoxy-carbonyl; and
 R² and R³ are independently selected from H and NO₂.

25 5. A pharmaceutical composition according to claim 1 wherein the compound of
 Formula I is selected from the group consisting of:

N-{5-Nitro-1H-benz[de]isoquinoline-1,3(2H)-dione}-2-aminoethanol;
 N-Dimethylamino-1,3-dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)acetic acid;
 30 N-Acetoxy-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline;

- N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol;
 N-Furfuryl-1,8-naphthalimide;
 6-(N,N-Dimethylamino)-2-(benzimidazol-2-yl)naphthalimide;
 N-(Pyrid-2-ylethyl)-1,8-naphthalimide;
- 5 1,3-Dioxo-6-phenylmercapto-N-(pyrid-2-ylethyl)-1,2,3,4-tetrahydro-
 benzo[i]isoquinoline;
 2-{2-(4-Methylphenylsulphonamido)phenyl}-6-(N,N-dimethylamino)-
 naphthalimide;
- 10 1,3-Dioxo-2-{2-(4-methylphenylsulphonamido)phenyl}-1,2,3,4-tetrahydro-
 benzo[i]isoquinoline;
 N-Octyl-5-nitronaphthalimide;
 5-Bromo-1,3-dioxo-N-methylpyrid-3-yl-1,2,3,4-tetrahydrobenzo-
 [i]isoquinoline;
- 15 1,3-Dioxo-5-nitro-N-(pyrid-2-ylethyl)-1,2,3,4-tetrahydro[i]isoquinoline;
 6-Nitro-2-(tetrahydrofuran-2-ylmethyl)naphthalimide;
 N-(1,3-Dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol;
 Naphthalicacid-N-aminoimide;
- 20 2-{2-(4-Methylbenzylsulphonamido)-4,5-dichlorophenyl}naphthalimide;
 3-Nitro-1,8-(N-propioncarboxylate)succinamidonaphthalene;
 1,3-Dioxo-2-(2-aminophenyl)-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 6-Nitro-2-(pyrid-3-methyl)naphthalimide;
- 25 3-Amino-7,4-bis(ethyl-1,3-dioxo)-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 2-(Benzimidazol-2-yl)-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 2-(2-Aminophenyl)naphthalimide;
- 30 1,3-Dioxo-2-{4,5-dimethyl-2-(4-methylphenylsulphonamido)phenyl}-
 1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 3-Methyl-3-(1,3-dioxo-5-nitro(1H,3H)benz[de]isoquinolyl)butyric acid
 methylester;
 1,3-Dioxo-N-methyltetrahydrofurfur-2-yl-5-nitro-1,2,3,4-tetrahydro-
 [i]isoquinoline;

- N-(4-Ethoxyphenyl)-5-nitronaphthalimide;
 6-Nitro-2-(furfuryl)naphthalimide;
 Ethyl-5-nitro-1,3-dioxo-1H-benz[de]isoquinoline-2,3H-acetate;
 Naphthalicacid-N,N'-diimide;
 5 2-(2-Hydroxyphenyl)naphthalimide;
 5-Amino-N-butyl naphthalimide;
 1,3-Dioxo-5-nitro-n-propylmorpholino-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 6-Nitro-2-(pyrid-2-ylethyl)naphthalimide;
 N-Methylnaphthalimide;
 10 N-(Pyrid-2-ylmethyl)naphthalimide;
 N-(3,5-Dimethylphenyl)-1,8-naphthalimide;
 6-Bromo-N-dimethylamino-1,3-dioxo-1,2,3,4-tetrahydrobenzo-
 [i]isoquinoline;
 N-(1,3-Dioxo-6-phenylmercapto-1,2,3,4-tetrahydrobenzo[i]isoquinoline)-
 15 aminoethanol; and
 N-Anilino-1,8-naphthalimide.
6. A pharmaceutical composition according to claim 2 wherein the compound of Formula I is selected from the group consisting of:
- 20 N-{5-Nitro-1H-benz[de]isoquinoline-1,3(2H)-dione}-2-aminoethanol;
 N-Dimethylamino-1,3-dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)acetic acid;
 N-Acetoxy-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
 N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol;
 25 N-Furfuryl-1,8-naphthalimide;
 6-(N,N-Dimethylamino)-2-(benzimidazol-2-yl)naphthalimide;
 N-(Pyrid-2-ylethyl)-1,8-naphthalimide;
 1,3-Dioxo-6-phenylmercapto-N-(pyrid-2-ylethyl)-1,2,3,4-tetrahydro-
 benzo[i]isoquinoline;

- 2-{2-(4-methylphenylsulphonamido)phenyl}-6-(N,N-dimethylamino)-naphthalimide;
- 1,3-Dioxo-2-{2-(4-methylphenylsulphonamido)phenyl}-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
- 5 N-Octyl-5-nitronaphthalimide;
- 5-Bromo-1,3-dioxo-N-methylpyrid-3-yl-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
- 1,3-Dioxo-5-nitro-N-(pyrid-2-ylethyl)-1,2,3,4-tetrahydro[i]isoquinoline;
- 6-Nitro-2-(tetrahydrofuran-2-ylmethyl)naphthalimide;
- 10 N-(1,3-Dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol;
- Naphthalicacid-N-aminoimide;
- 2-{2-(4-Methylbenzsulphonamido)-4,5-dichlorophenyl}naphthalimide;
- 3-Nitro-1,8-(N-propioncarboxylate)succinamidonaphthalene;
- 1,3-Dioxo-2-(2-aminophenyl)-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
- 15 6-Nitro-2-(pyrid-3-methyl)naphthalimide;
- 3-Amino-7,4-bis(ethyl-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
- 2-(Benzimidaz-2-yl)-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline; and
- 2-(2-Aminophenyl)naphthalimide.
- 20 7. A pharmaceutical composition according to claim 3 wherein the compound of Formula I is selected from the group consisting of:
- N-{5-Nitro-1H-benz[de]isoquinoline-1,3(2H)-dione}-2-aminoethanol;
- N-Dimethylamino-1,3-dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
- N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)acetic acid;
- 25 N-Acetoxy-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
- N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol;
- N-Furfuryl-1,8-naphthalimide;
- 6-(N,N-Dimethylamino)-2-(benzimidazol-2-yl)naphthalimide;
- N-(Pyrid-2-ylethyl)-1,8-naphthalimide; and

1,3-Dioxo-6-phenylmercapto-N-(pyrid-2-ylethyl)-1,2,3,4-tetrahydro-
benzo[i]isoquinoline.

8. A pharmaceutical composition according to claim 4 wherein the compound of
5 Formula I is selected from the group consisting of:
N-{5-Nitro-1H-benz[de]isoquinoline-1,3(2H)-dione}-2-aminoethanol;
N-Dimethylamino-1,3-dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline;
N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)acetic acid;
N-Acetoxy-1,3-dioxo-1,2,3,4-tetrahydrobenzo[i]isoquinoline; and
10 N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol.
9. A pharmaceutical composition as defined in claim 1, which inhibits NGF-
mediated activity.
- 15 10. A method for inhibiting a neurotrophin-mediated activity comprising the step of
exposing neuron cells to an effective amount of a composition as defined in claim 1.
11. A method for inhibiting a neurotrophin-mediated activity in a mammal comprising
the step of administering to said mammal a therapeutically effective amount of a
20 composition as defined in claim 1.
12. A method as defined in claim 11, wherein said composition is administered
intraventricularly.
- 25 13. An *in vivo* hydrolyzable ester or amide of a compound selected from the group
consisting of:
N-{5-Nitro-1H-benz[de]isoquinoline-1,3(2H)-dione}-2-aminoethanol;
N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)acetic acid;
30 N-(1,3-Dioxo-5-nitro-1,2,3,4-tetrahydrobenzo[i]isoquinoline)aminoethanol;

Naphthalicacid-N-aminoimide;

1,3-Dioxo-2-(2-aminophenyl)-1,2,3,4-tetrahydrobenzo[i]isoquinoline;

2-(2-Aminophenyl)naphthalimide; and

2-(2-Hydroxyphenyl)naphthalimide.

Variable	Mean	Standard deviation	Minimum	Maximum
Age	34.2	10.5	20	55
Gender	Male	Female		
Marital status	Married	Single		
Education	High school	College		
Income	\$10,000	\$20,000		
Health status	Good	Fair		
Exercise frequency	Weekly	Monthly		
Stress level	Low	High		
Sleep quality	Good	Poor		
Dietary habits	Healthy	Unhealthy		
Alcohol consumption	None	Occasional		
Tobacco use	Non-smoker	Smoker		
Family size	1-2	3-4		
Work hours	40	50		
Commuting time	30	45		
Home ownership	Renter	Owner		
Neighborhood safety	Safe	Unsafe		
Access to parks	Yes	No		
Public transportation	Yes	No		
Crime rate	Low	High		
Property taxes	Low	High		
Quality of schools	Good	Poor		
Healthcare access	Yes	No		
Environmental quality	Good	Poor		
Community involvement	Yes	No		
Local government responsiveness	Yes	No		
Overall satisfaction	High	Low		